AC microgrid power sharing

This paper presents a distributed cooperative control-based (DCC) power management algorithm for a hybrid AC/DC microgrid. The proposed algorithm for a hybrid microgrid system controls the power ...

In this paper, to systematically solve the problem of active and reactive power sharing of islanded AC microgrids in the primary control level, a MIMO model reference adaptive controller ...

The stability and accuracy of power sharing between DGs in isolated microgrids are key points for favouring renewable energy sources within a wider operating margin to extract the ...

By designing an elegant command generator, the power sharing problem for a grid-connected microgrid has been converted into a tracking problem for an interconnected leader ...

The motivation is to introduce a modified droop-based decentralized control strategy that surpasses the constraints of conventional approaches, ensuring precise and adaptive power sharing ...

To deal with these problems, this article proposes an event-triggered consensus control approach. First, the nonlinear state-space function regarding the ac microgrid is built, which is further transformed ...

To achieve fast and almost accurate voltage regulation and reactive power sharing with limited practical communication bandwidth, a linearly combined V-Q error is constructed, and a droop-free distributed ...

When multiple paralleled distributed generation (DG) units operate in an islanded microgrid, accurate power sharing of each DG unit cannot be achieved with a conventional droop control strategy due to ...

This paper introduces an innovative method for enhanced power distribution in an AC microgrid (MG), utilizing parallel inverters with a decentralized droop control strategy.

This paper introduces a new adaptive control strategy for power-sharing in a hybrid AC/DC microgrid (HMG). The existing interlink converter (ILC) control methods exhibit limitations under ...

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